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are delivered to the producer or source of the data. The data route may include an identification of the consumer of the data, a minimal list of routines which will perform some preprocessing of the data, a return route, a don't care mask, a set of registered routes and a set of actions. The set of actions may be a set of states to transition or may be a set of functions to call to enable the transmission of the data from the producer to the consumer..." (col. 2, lines 43-52).

In column 9, Corbin describes searching through a route table for available, registered routes. In particular, Corbin describes, in col. 9 at lines 25-42 a sequential method of stepping through available routes to search for a match, or alternatively using a Patricia Tree radix tree to perform a search for a match. At column 10, lines 46-49, Corbin states:

"... a lazy deletion algorithm may be used in which a key is marked as deleted but left in the tree. When the number of deleted keys become significant, the tree is rebuilt..."

However, Corbin is silent as to how it is determined that 'the number of deleted keys' becomes significant, or how the number of deleted keys are monitored.

In addition, Corbin is silent as to what happens if any routes are changed during operation of the system.

U.S. Patent No. 5,802,054, Bellanger:

Bellanger describes an atomic type switch, comprising a plurality of switch nodes "...arranged in a mesh, a first set of internal communication links which are coupled between switch nodes internal to the network switch, and a second set of external communication links which comprise network links from switch nodes on the border of the network switch to systems external to the network switch..." (col. 2, lines 49-55) The switch nodes also include resources to execute a routing process for frames inside the mesh, including "a route table memory that has a set of accessible memory locations that store switch route data..." (col. 3, lines 2-5) Identifying tags are used to access route table memory, wherein the tags comprise a destination address, a portion of the destination address, or a hash value..."

Bellanger describes, at col. 3, lines 23 - 40, in part :

"... the switch node includes node route logic which is coupled to the flow detect logic... The node route logic determines whether the received frame includes a switch route field that indicates a port in the set of ports to which the frame should be directed... If the

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received frame includes a switch route field, the field is updated according to a source route type protocol, and the frame is forwarded ... out the indicated port. If the received frame does not include a switch route field... then the identifying tag ... is used to access the route table memory. Switch route data is retrieved from the route table memory if an entry exists for the identifying tag of the current frame. This data is used to generate a switch route field for the frame, and to direct the frame out a port..."

A. Independent Claims 1, 12, 23, 34, 41 and 48:

In order to properly support a rejection under 35 U.S.C. §103, the combination of the two references must show, describe or suggest every element in the claim. Applicants believe that the combination put forth by the Examiner fails in this respect, and submit that, therefore, the rejection should be withdrawn.

Claim 1 recites: "A method of maintaining a route table in a routing device, the route table including a plurality of routes between network devices in a network, the method comprising ... registering a given set of routes ... determining if any of the routes in the given set of routes has changed; and ... listing data identifying each route in the given set of routes that has been determined to be changed..."

The Examiner states, at page 2 of the Office Action: "... Corbin disclosed a method of maintaining a route table in a routing device, the route table including a plurality of routes between network devices in a network, the method comprising: registering a given set of routes (col. 2, lines 53-57)... However, Corbin failed to disclose determining if any of the routes in the given set of routes has changed; and listing data identifying each route in the given set of routes that has been determined to be changed. In the same field of endeavor Bellanger disclosed determining if any of the routes in the given set of routes has changed; and listing data identifying each route in the given set of routes that has been determined to be changed (col. 7, lines 5-29)..."

Applicants respectfully traverse the Examiner's characterization of Bellanger. At no point within the Bellanger reference does Bellanger either describe, suggest, disclose or even mention the step of "...determining if any of the routes in the given set of routes has changed; and ... listing data identifying each route in the given set of routes that has been determined to be changed..."

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Referring to the passage cited by the Examiner, col. 7, lines 5-29 is merely describing what happens when the route table is addressed, and there is no entry in the route table corresponding to the header of the frame. This would NOT indicate to Applicant that the route associated with the frame had been changed, but rather that there had not been a route for the frame there in the first place. Applicants believe that this is true because of the action that Bellanger takes subsequent to such an occurrence. For example, Bellanger states, at col. 7, lines 11-17 "... If there is an entry in the route table corresponding to the header of the frame, then the switch route data from the table is used to create a switch route header. .. If no entry is found in the route table, then the frame is routed to a default address, such as the address of a multiprotocol router associated with the switch..."

Applicants therefore assert that Bellanger does not teach the claimed element of the invention of 'determining if any of the routes in the given set or routes has changed...' because, in order to be able to 'determine if any of the routes in the given set of routes has changed, Bellanger would have to recognize the routes in the first place, then detect the change. Applicants can find no support in Bellanger for such claimed limitation, and the Examiner admits that Corbin neither describes nor suggests such a limitation, and, on careful review of Corbin, Applicants would agree with the Examiner that the claimed limitation is neither described nor suggested by Corbin.

Applicants would further assert that, since neither Bellanger nor Corbin describe or suggest 'determining if any routes ... has (sic) changed', then the combination could neither describe nor suggest the other limitation of claim 1, that of "listing data identifying each route in the given set of routes that has been determined to be changed..."

Accordingly, for at least these reasons, Claim 1 is patentably distinct over the references, and the rejection should be withdrawn.

Independent claims 12, 23, 34, 41 and 48 include limitations similar to those put forth in claim 1, and therefore are patentably distinct for the reasons cited above with regard to claim 1. For example, claim 12 recites "... a route examiner ... determining if any of the routes in a given set of routes has changed ..." Claim 23 recites " program code for determining if any of the routes in the given set of routes has changed..." Claims 34, 41 and 48 all recite "... determining if a given route in a route table has changed..." Therefore, Applicant believes that independent claims 12, 23, 34, 41 and

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48 are patentably distinct over the references, and that the rejection should be withdrawn.


B. Dependent claims 2-11, 13-22, 24-33, 35-40, 42-47, 49-54

The above identified dependent claims depend upon independent claims that Applicant believes are allowable for the above stated reasons, and are therefore allowable for at least the reason put forth with regard to those claims.

Conclusion

Accordingly, in view of the above remarks, Applicant submits that claims 1-54 are in condition for allowance. A notice to this affect is requested. If the Examiner believes that there are still issues to be addressed with regard to the patentability of the claims, he is invited to contact Applicant's attorney at the below listed number.

Respectfully Submitted,


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